

REMARKS

Claims 1-27 are pending in the present application. Claims 1-7, 9, and 15-27 are rejected under 35 U.S.C. 102(b) and claims 8 and 10-14 are objected to. Claims 7, 10, and 15 are amended, and claim 8 is canceled. No new matter is added. The rejections are respectfully traversed in light of the following remarks, and reconsideration is requested.

Rejections under 35 U.S.C. § 102(b)

Claims 1-3, 5, 6, 18-25, and 27 were rejected under 35 U.S.C. 102(b) as being anticipated by James (USPN 4,415,115). The Examiner writes that "James teaches a bond tool . . . comprising . . . a V-shaped grooving portion (18, area adjacent 62), and a V-shaped staking portion (32, 62) (figures 3, 6A, and col. 7, lines 15-61)."

James discloses a bonding capillary 10 that has a bore 12 and tapered region 16 through which a wire runs. (Col. 3, lines 18-24; Figs. 1, 3, 6A, and 6B). At the end of the bore is a conical shaped bore throat region 18, with a bonding surface 21 surrounding the bore throat 18. (Col. 3, lines 33-38; Fig. 3). Note that Figs. 1-3 are side views of the bonding capillary 10. (Col. 2, lines 54-61). Thus, the bonding capillary disclosed by James simply has a bonding surface with conical opening. The region 18, cited by the Examiner as a V-shaped grooving portion, is simply an opening for the wire to exit the tool.

In contrast, claim 1 recites "a grooving portion adjacent to the guide portion for forming a groove in the bond; and a staking portion adjacent to the grooving portion for closing the groove". As set forth in Applicants' specification at page 9, line 7 to page 10, line 14 and Figs. 8-10, the bond head of Applicants' invention has three surfaces, with a first surface guiding the wire, a second surface (grooving portion 404) forming a groove in the bond, and a third surface (staking portion 406) closing the groove around the wire. This is not disclosed or suggested in James. In fact, the capillary tip of James is very different from the

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bonding tool recited in claim 1, such as shown by comparing Figs. 1-3 of James with Figs. 8-10 of Applicants' specification.

Therefore, claim 1 is patentable over James because James does not teach or suggest a bond tool having "a grooving portion adjacent to the guide portion for forming a groove in the bond; and a staking portion adjacent to the grooving portion for closing the groove", as recited in claim 1.

Claims 2, 3, 5, and 6 depend on claim 1 and are thus patentable over James for at least the same reasons as claim 1.

Independent claim 18 recites "forming a groove in the bond; placing the wire in the groove; and closing the groove around the wire". In contrast, James shows none of these recited steps. In fact, as shown in Fig. 5A and 7, James discloses that the wire is simply bonded to the surface of the device.

Therefore, claim 18 is patentable over James because James does not teach or suggest "forming a groove in the bond; placing the wire in the groove; and closing the groove around the wire", as recited in claim 18.

Claims 19-25 and 27 depend on claim 18 and are thus patentable over James for at least the same reasons as claim 18.

Claims 1-6 and 18-27 were rejected under 35 U.S.C. 102(b) as being anticipated by Eltzroth et al. (USPN 3,689,983). The Examiner writes that "Eltzroth teaches a bond tool . . . comprising . . . a V-shaped grooving portion (39), and a V-shaped staking portion (42)."

Eltzroth et al. discloses a bond tool with a bonding step 37 and a notch 39, where the bonding step 37 has a flat bonding surface 40. (Col. 3, lines 28-32; Figs. 3 and 4). As shown in Fig. 4, which is a side view of the bond tool, the bonding surface of the tool only includes the bonding surface 40 with grooves 41 and 42. The notch 39 is not a grooving portion because it does not form a groove in the bond. As seen from Fig. 4, notch 39 cannot even

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form a groove if desired. Furthermore, groove 42 is not a staking portion since it does not close the groove around the wire. Groove 42 simply enables the wire to travel along an angle of the bonding tool, as seen from Fig. 4.

Claim 1 recites a bond tool comprising "a grooving portion adjacent to the guide portion for forming a groove in the bond; and a staking portion adjacent to the grooving portion for closing the groove". Because Eltzroth et al. neither teaches nor suggests such a bond tool, claim 1 is patentable over Eltzroth et al.

Claims 2-6 depend on claim 1 and are thus patentable over Eltzroth et al. for at least the same reasons as claim 1.

Independent claim 18 recites "forming a groove in the bond; placing the wire in the groove; and closing the groove around the wire". In contrast, Eltzroth et al. shows none of these recited steps. In fact, as shown in Figs. 2 and 4, the wire is simply bonded to the surface of the device. Thus, claim 18 is patentable over Eltzroth et al.

Claims 19-27 depend on claim 18 and are thus patentable over Eltzroth et al. for at least the same reasons as claim 18.

Claims 7 and 9 were rejected under 35 U.S.C. 102(b) as being anticipated by Lo et al. (USPN 5,626,276). The Examiner indicates that claim 8, which depends on claim 7, is allowable. Claim 7 has been amended to include the limitations of claim 8. Thus, claim 7 is now allowable.

Claim 9 depends on claim 7 and is thus allowable for at least the same reasons as claim 7.

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Claims 15-17 were rejected under 35 U.S.C. 102(b) as being anticipated by Diepeveen (USPN 3,672,556). The Examiner writes that "Diepeveen teaches a curved wire clamp having a first and second arm wherein one arm is fixed (figures 1 and 4 and col. 2, lines 1-36)."

As shown in Figs. 1 and 4, Diepeveen discloses a wire clamp having a curved portion at the tip and an angled or 90° step portion opposite the curved portion. The wire 20 is held perpendicular to the length of the clamp body, as shown in Fig. 4. Fig. 4 shows that wire 20 is equidistant between the curved tip and the angled edge.

In contrast, claim 15, as amended, recites two "curved" first portions "wherein the curved first portion is closer to the spool than the second portion; . . . and wherein the wire enters the clamp through the first curved portions and exits the clamp from the second curved portions". Support for the amended is found in Applicants' specification at page 7, lines 22-32 and Figs. 3-5. Thus, no new matter is added. As set forth in Applicants' specification at page 7, lines 28-32, page 8, lines 16-21, and Fig. 5, the curved portion of Applicants' clamp provides advantages such as enabling the filament to re-enter the clamps and keep the filament straight. Such a clamp is not disclosed or suggested by Diepeveen. First, Diepeveen is silent as to where the spool is. Since the wire is shown equidistant to the angled portion and the curved portion, it is presumed that the spool is likewise equidistant. Thus, Diepeveen does not teach or suggest a curved portion closer to the spool than the second portion. Further, in the clamp of Diepeveen, the wire enters and exits the sides of the clamp, as shown in Fig. 4. In contrast, claim 15 recites that "the wire enters the clamp through the first curved portions and exits the clamp from the second curved portions." In other words, the wire enters and exits parallel to the sides of the clamp, and not perpendicular to the sides of the clamp as shown in Fig. 4 of Diepeveen.

Therefore, claim 15 is patentable over Diepeveen for the foregoing reasons.

Claims 16 and 17 depend on claim 15 and are thus patentable over Diepeveen for at least the same reasons as claim 15.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. § 102.

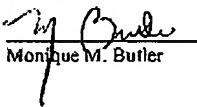
Objection to Claims

Claims 8 and 10-14 are objected to as being dependent upon a rejected base claim. Claim 8 has been canceled, and its limitations included into amended claim 7. Claim 7 is thus now allowable. Claims 10-14 depend on claim 7 and are likewise now allowable.


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CONCLUSION

For the foregoing reasons, Applicant believes pending claims 1-7 and 9-27 are allowable, and a notice of allowance is respectfully requested. If the Examiner has any questions regarding the application, the Examiner is invited to call the undersigned Attorney at (949) 752-7040.

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I hereby certify that this paper is being facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.	
 Monique M. Butler	<u>December 12, 2005</u> Date of Signature

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